

Fig. 1 - system

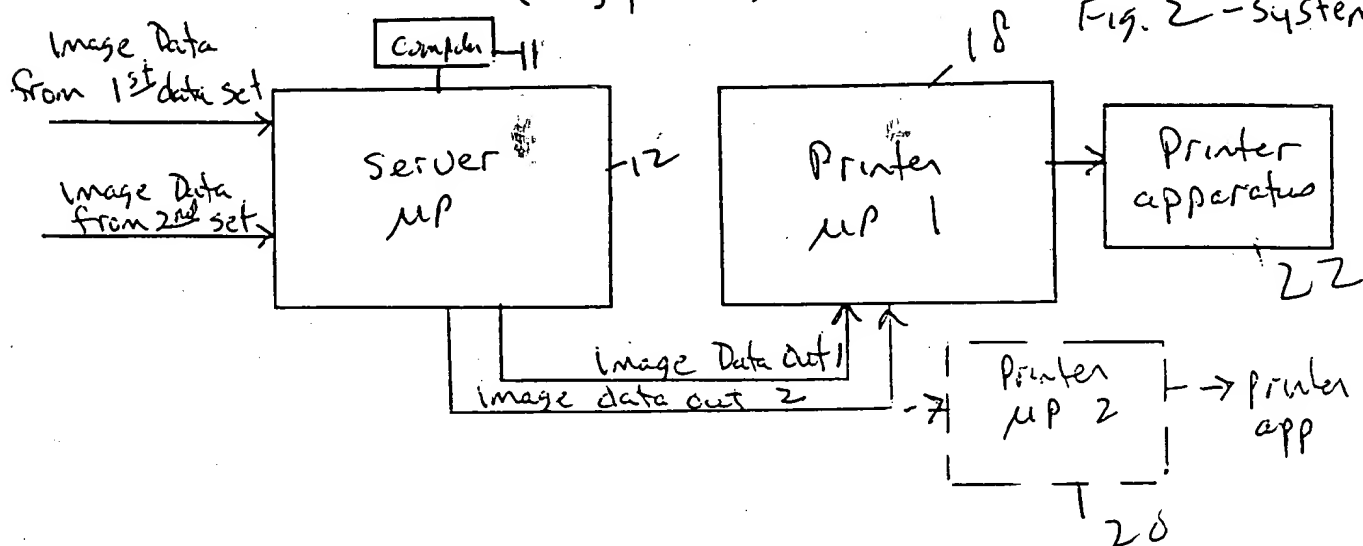


Fig. 2 - system

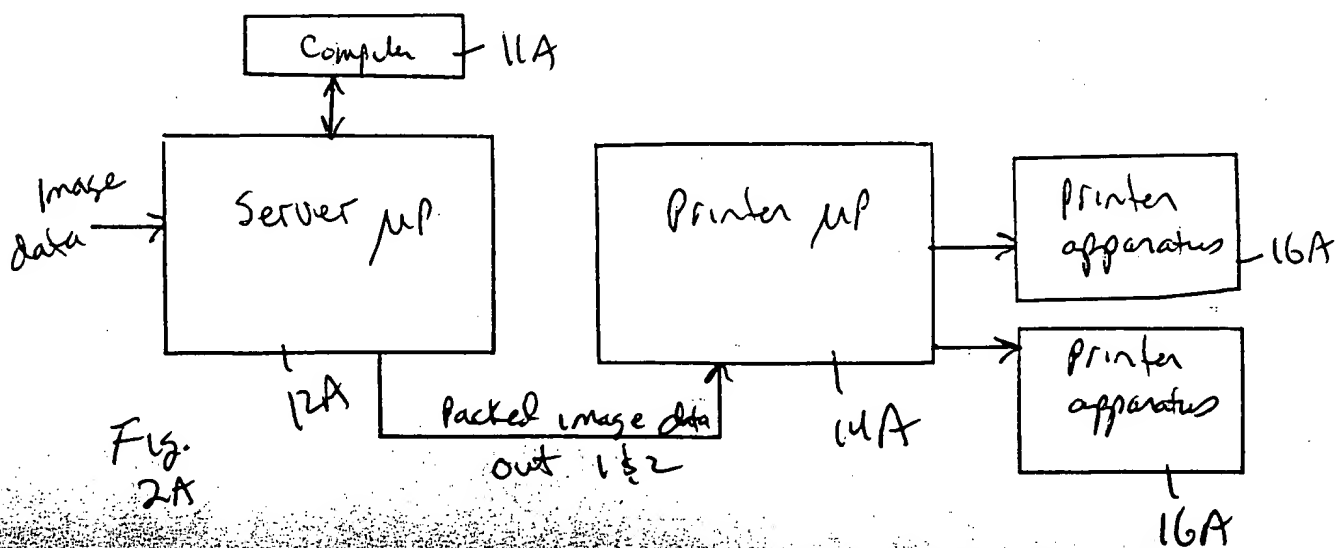


Fig. 2A

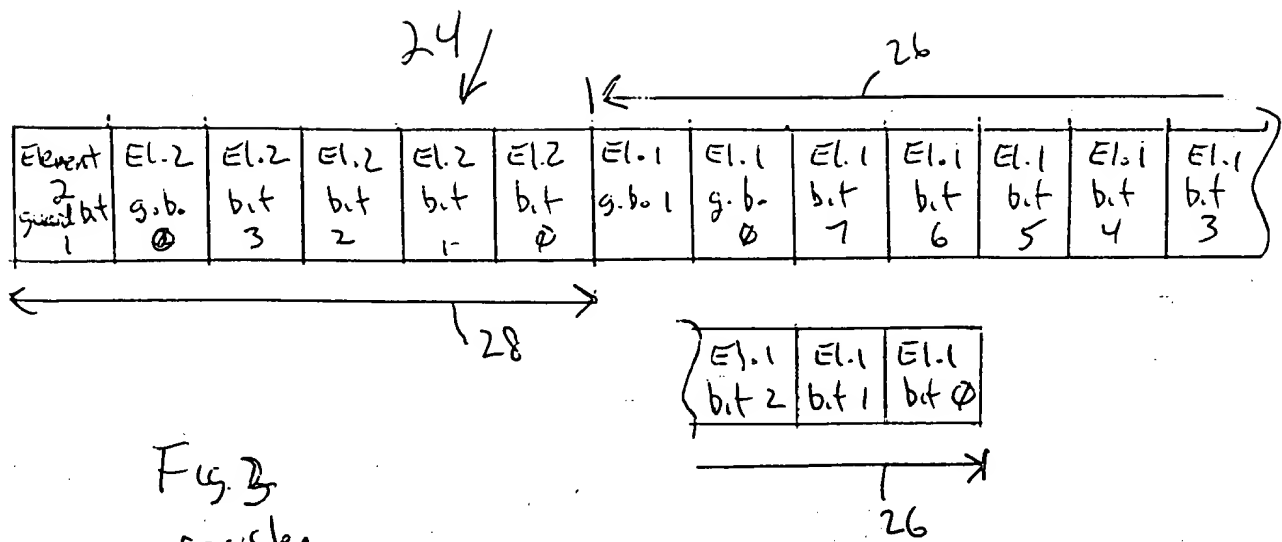
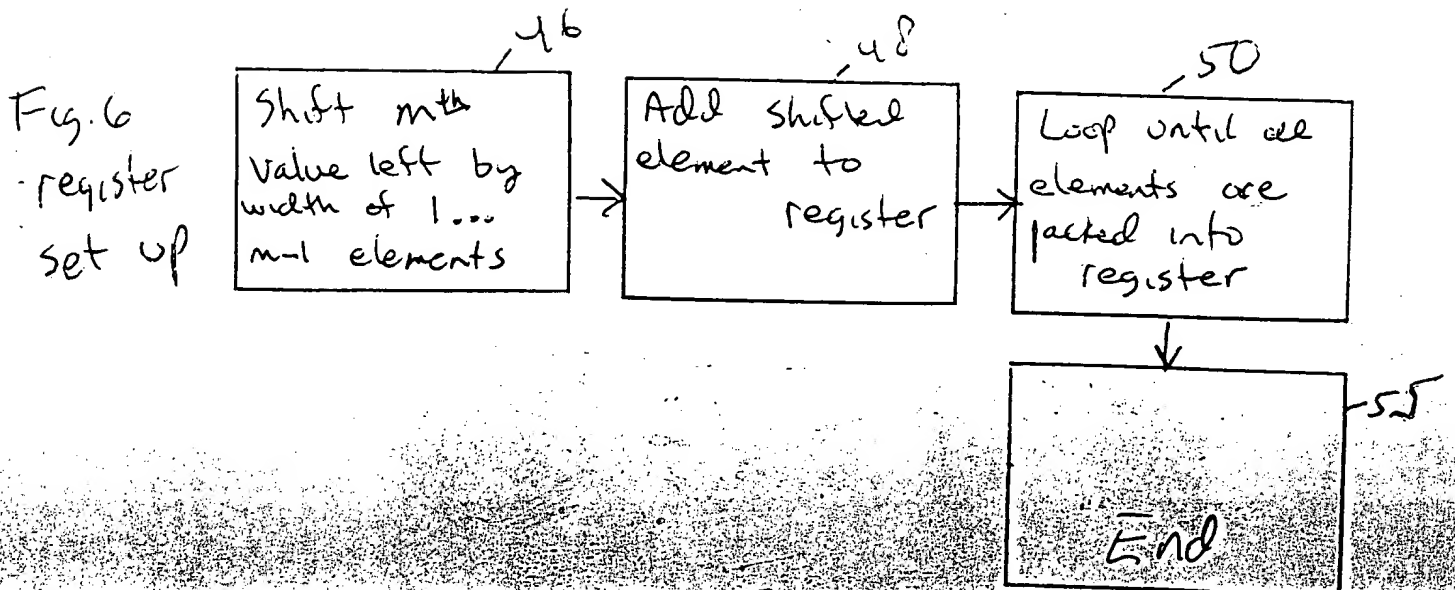
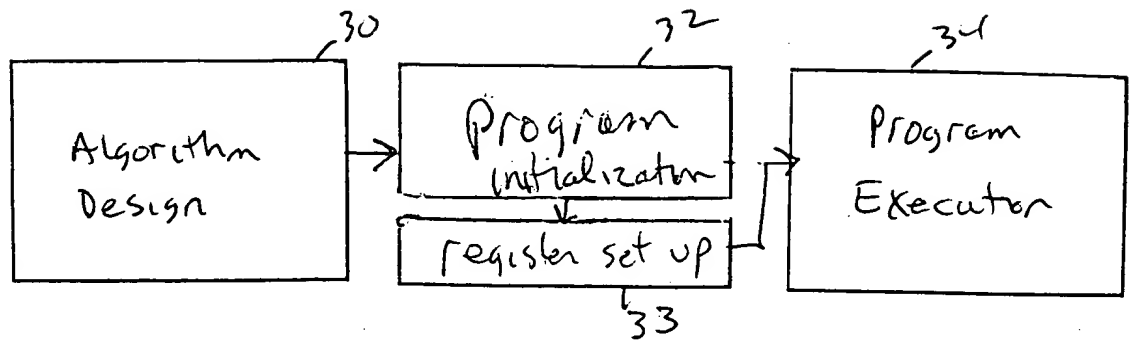


Fig. 3
register

Fig. 4 overall flow



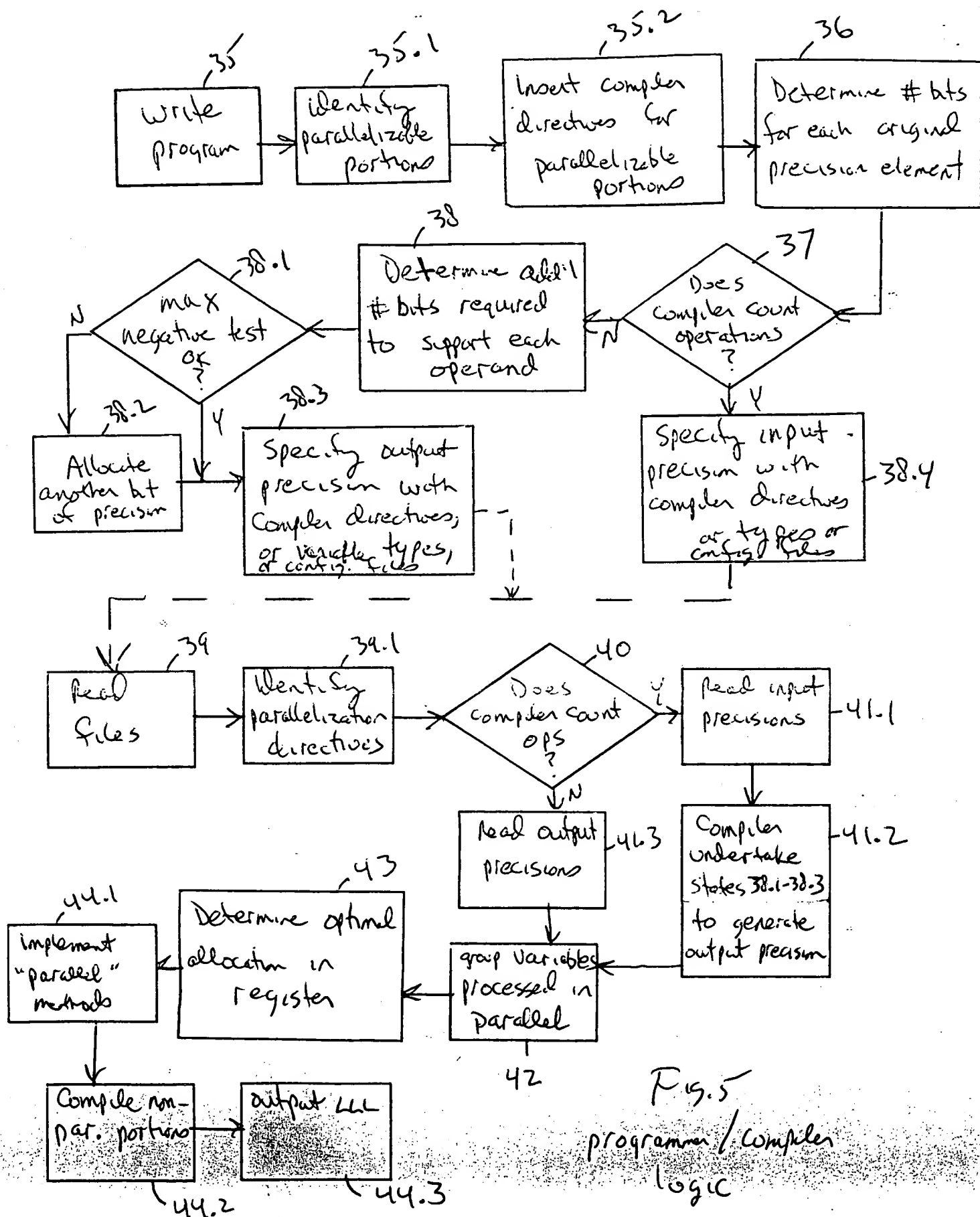


Fig. 5
program/compiler
logic

Fig. 5A
Initialization

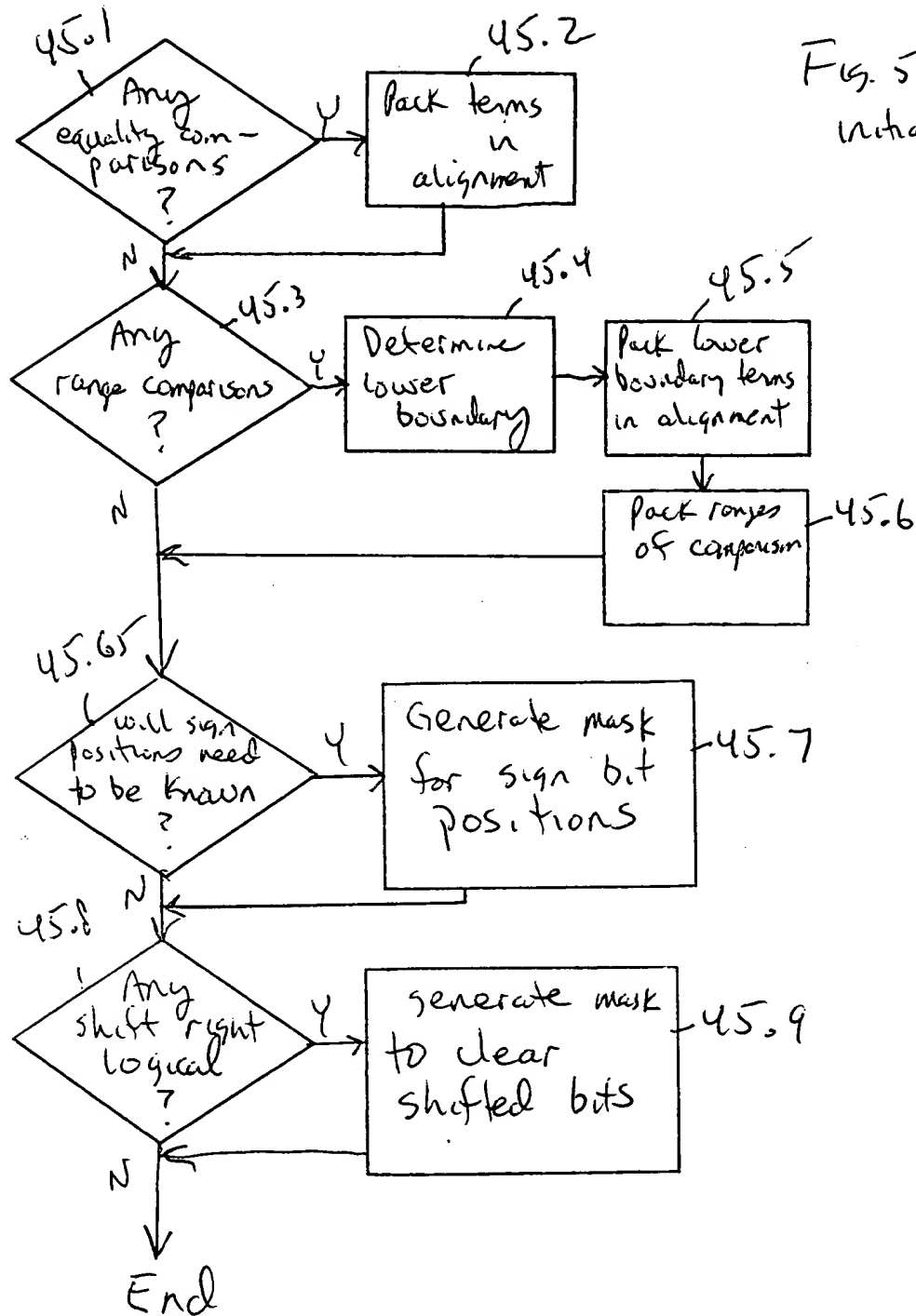
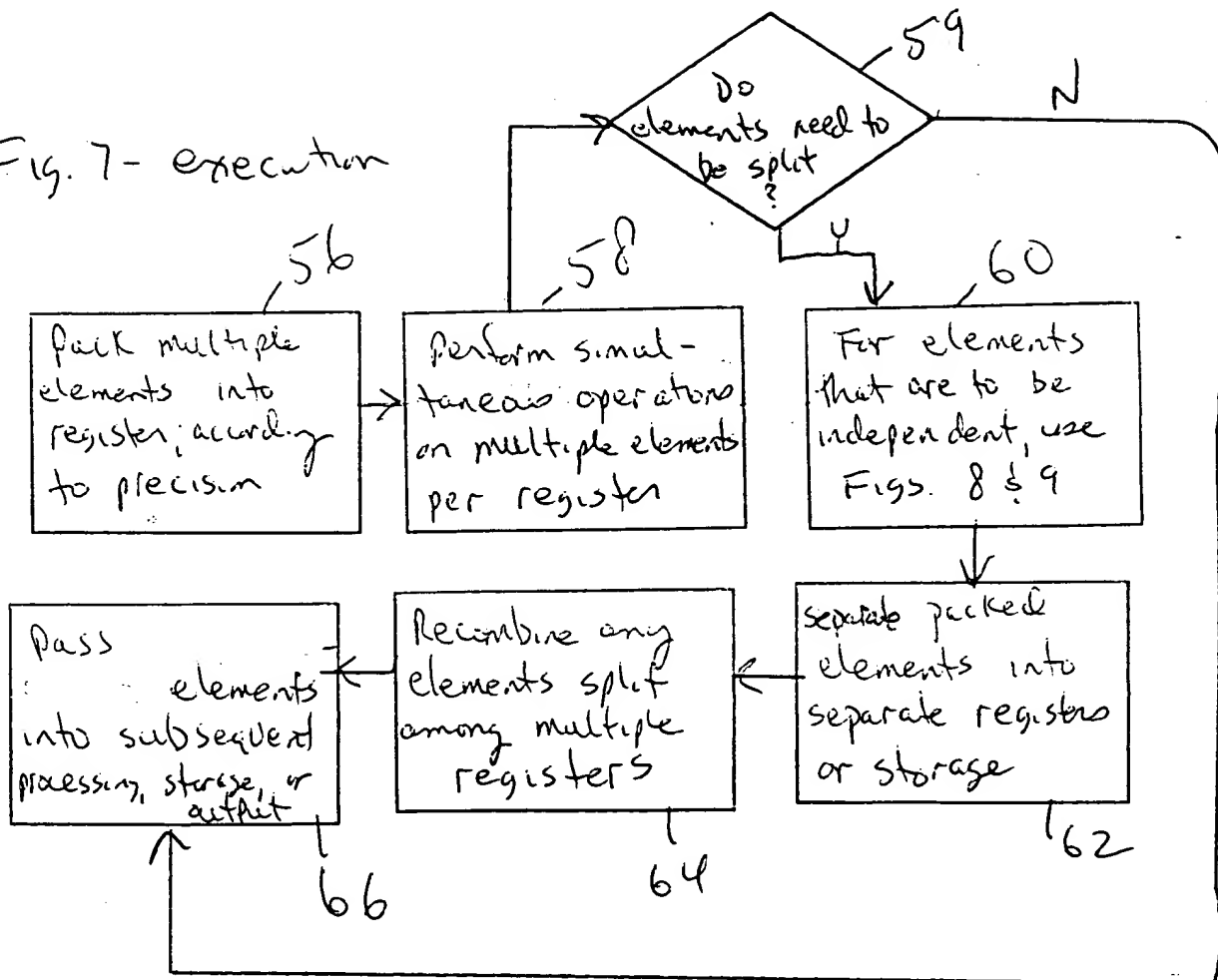


Fig. 7- execution



After operating,
Add right-most
element sign bit to
least significant bit
of left-adjacent
element

68

Do recursively
right to left
until all borrows
have been removed

70

Fig 8

logic for
independent
elements

Fig. 9- alto
logic for independent
elements

72
mask sign bits
in each element

74
Add masked
sign bits back into
register

Discard or ignore
left most (or
previous sign bit)
position before
passing element

76

Fig. 10-logic

for determining
whether element
contained around
zero

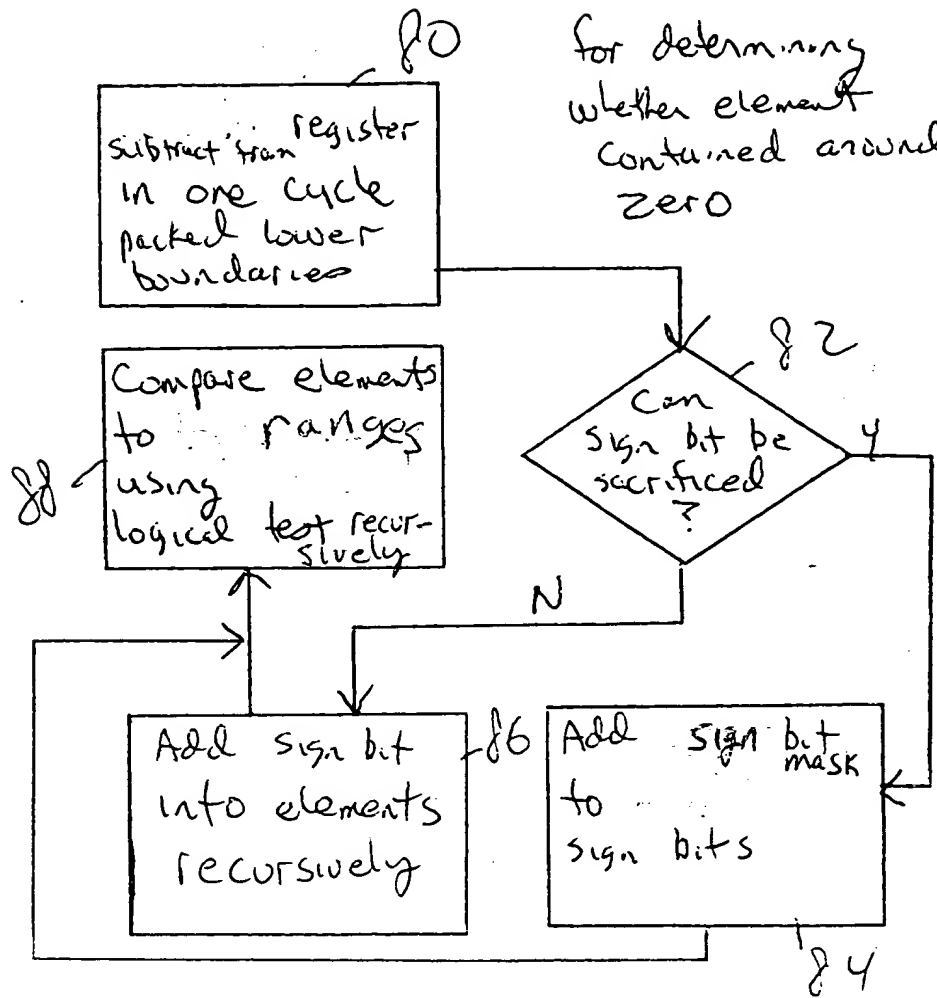


Fig. 12 - logic for arithmetic compares:

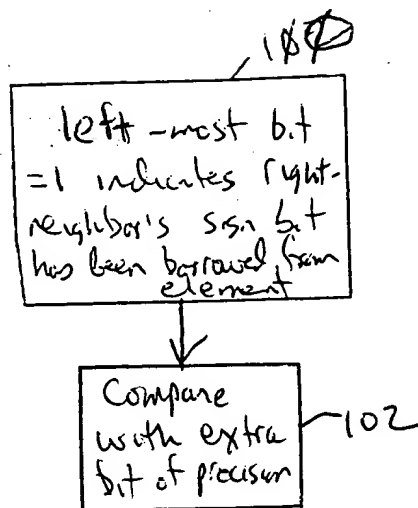


Fig. 11

